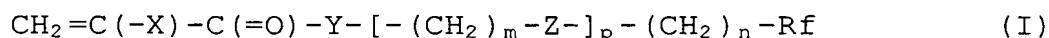


CLAIMS

1. A surface treatment agent comprising (1) a fluorine-containing polymer and (2) water and/or an organic solvent,
5 characterized in that the fluorine-containing polymer comprises repeating units derived from a fluorine-containing compound of the formula:



wherein X is a hydrogen atom or a methyl group;

10 Y is -O- or -NH-;

Z is -S- or -SO₂-;

Rf is a fluoroalkyl group having 1 to 6 carbon atoms;

m is from 1 to 10, n is from 0 to 10, and p is 0 or 1.

15 2. The surface treatment agent according to claim 1, which is in the form of a solution, an emulsion or an aerosol.

20 3. A method of treating a substrate with the surface treatment agent according to claim 1.

25 4. The method according to claim 3, wherein the substrate is a textile, a masonry, a filter (for example, an electrostatic filter), a dust protective mask, a fuel cell, glass, paper, wood, leather, fur, asbestos, brick, cement, metal and oxide, ceramics, plastics, a coated surface or a

plaster.

5. A textile treated with the surface treatment agent according to claim 1.

5

6. A carpet treated with the surface treatment agent according to claim 1.

7. A fluorine-containing compound (a) of the formula:



wherein X is a hydrogen atom or a methyl group;

Y is -O- or -NH-;

Z is -S-;

Rf is a fluoroalkyl group having 1 to 6 carbon atoms;

15 m is from 1 to 10, n is from 0 to 10, and p is 0 or 1;

provided that when p is 0, Y is -NH- and that when p is 1, Y is -O- and n is 0.

8. The fluorine-containing compound according to claim 7,

20 wherein the carbon number of the fluoroalkyl group (Rf group) is from 1 to 4.

9. The fluorine-containing compound according to claim 7,

wherein the fluoroalkyl group (Rf group) is a 25 perfluoroalkyl group.

10. A fluorine-containing polymer comprising (A) repeating units derived from the fluorine-containing compound (a) according to claim 7.

5.

11. The fluorine-containing polymer according to claim 10, further having:

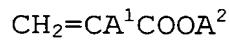
(B) repeating units derived from (b) a monomer free from a fluorine atom, and

10 (C) optionally, repeating units derived from (c) a crosslinkable monomer,

in addition to the repeating units (A).

12. The fluorine-containing polymer according to claim 11,

15 wherein the fluorine atom-free monomer (b) forming the repeating units (B) is acrylates of the general formula:



wherein A¹ is a hydrogen atom or a methyl group, and

A² is a hydrocarbon group having 1 to 30 carbon atoms (particularly an alkyl group represented by C_nH_{2n+1} (n = 1 to 30)).

13. The fluorine-containing polymer according to claim 11,

wherein the crosslinkable monomer (c) forming the repeating units (C) is a fluorine-free monomer having at least two

25

reactive groups and/or carbon-carbon double bonds.

14. The fluorine-containing polymer according to claim 11,
wherein the amount of the fluorine atom-free monomer (b) is
5 0.1 to 50 parts by weight, and
the amount of the crosslinkable monomer (c) is at most 20
parts by weight,
based on 100 parts by weight of the fluorine-containing
compound (a).